

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The final Office Action of October 8, 2003 has been received and contents carefully reviewed.

By this Amendment, Applicants amend claim 1 and cancel claim 18 without disclaiming the underlying subject matter. Accordingly, claims 1, 3, 4, 9, 15, 17 and 21 are currently pending in the present application. Reexamination and reconsideration of the application are respectfully requested.

In the Office Action, the Examiner rejected claims 1, 4, and 21 under 35 U.S.C. §103(a) as being unpatentable over Bang (U.S. Patent No. 5,466,620) in view of the Related Art; rejected claims 3 and 9 under 35 U.S.C. §103(a) as being unpatentable over Bang and the Related Art as applied to claim 1 above, and further in view of den Boer et al. (U.S. Patent No. 5,656,824); rejected claims 15 and 17 under 35 U.S.C. §103(a) as being unpatentable over Bang in view of the Related Art and den Boer et al.; and rejected claim 18 under 35 U.S.C. §103(a) as being unpatentable over Bang in view of den Boer et al. Applicants traverse these rejections.

Claim 1 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, "... wherein both of the transparent conductive material and the metal material of the dual layered source and drain electrodes contact the ohmic contact layer, whereby sensitivity of the optical detecting sensor is improved." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 1 and claims 3, 4 and 9 which depend therefrom, are allowable over the cited references.

Applicants respectfully submit that "in determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious." See M.P.E.P. § 2141.02.

Applicants respectfully submit that the present invention improves sensitivity of an optical detecting sensor by utilizing the elements and the limitations claimed, for example, in claim 1. First of all, the disclosure of Bang is directed to a fabrication method of a TFT-LCD

device capable of repairing a point defect during the fabrication process, while the present invention relates to an optical detecting sensor with an improved sensitivity. Secondly, the ON-OFF characteristic of the optical detecting sensor is more critical than switching devices in TFT-LCD devices in that the source of the charges in the optical detecting sensor is light reflected from an object, while the charge source of the switching devices in TFT-LCD devices is an outside electrical source(s) associated with video signals. Thirdly, the source of the problems addressed by Bang is not analogous to the source of the problems in the present invention. Applicants respectfully submit that "This is part of the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention under 35 U.S.C. § 103(a)." See M.P.E.P. § 2141.02. For at least these reasons, Applicants respectfully disagree with the Examiner's conclusion that "it would have been obvious ... to use the sensor TFT and the storage capacitor of the applicant's admitted prior art in the method of Bang..." See Office Action on pages 2-3.

Claim 15 is allowable over the cited references in that claim 15 recites a combination of elements including, for example, "... a sensor TFT having a gate electrode and spaced apart first and second sensor electrodes; and a switching TFT comprised of... wherein the second switching electrode is a dual layer structure comprised of a transparent conducting layer that is in contact with said ohmic contact layer and a non-transparent metal layer that extends over the transparent conductive material and that wraps around an end of the transparent conductive material so as to contact the ohmic contact layer." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 15 and claim 17 which depends therefrom, are allowable over the cited references.

Claim 21 is allowable over the cited references in that claim 21 recites a combination of elements including, for example, "... a switching TFT for selectively controlling release of the stored charges, the switching TFT having a gate electrode on a first surface of transparent substrate, an insulating layer on the gate electrode, an active layer on the insulating layer, an ohmic contact layer on the active layer, and dual layered source and drain electrodes that are each comprised of a transparent conductive material that extends over and contacts the ohmic contact layer, and a metal material that extends over the transparent conductive material and that wraps around an end of the transparent conductive material to contact the ohmic contact

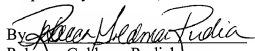
layer..." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 21 is allowable over the cited references.

Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited. If the Examiner deems that a telephone conference would further the prosecution of this application, the Examiner is invited to call the undersigned attorney at the telephone number (202) 496 - 7500. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

Dated: January 6, 2004

Respectfully submitted,

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layer..." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 21 is allowable over the cited references.

Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited. If the Examiner deems that a telephone conference would further the prosecution of this application, the Examiner is invited to call the undersigned attorney at the telephone number (202) 496 - 7500. All correspondence should continue to be sent to the below-listed address.

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